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ABSTRACT Contained in this bibliography are 312 references as
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A SELECTED BIBLIOGRAPHY OF ON-LINE VISUAL
DISPLAYS AND THEIR APPLICATIONS

J. Braidwood

Report No. 2 on DPC Information Display Project.

ED050770

Abstract

This bibliography covers general principles and problems of information display, man-computer interaction, present and possible future display equipment, ergonomic aspects of display design, and current and potential applications, especially to information processing.

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Keywords

cathode ray tube displays	✓	graphics	✓
computer aided design		human factors	
computer displays		information display	
computer graphics		information processing	
conversational computing		information retrieval	✓
display consoles		input/output	
display equipment		library automation	
ergonomics		man-computer interaction	
graphic languages		remote terminals	
		visual displays	

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Introduction

This bibliography contains a selection of relevant and substantial references to on-line real-time visual display devices and their applications, especially to information processing and man-machine interaction.

Some 500 references were collected from November 1968 to August 1969, and most of these were obtained and read. This bibliography contains about 300 references selected for their relevance to:-

1. general principles and problems of information display
2. man-computer interaction
3. present and possible future display equipment, techniques, software and systems
4. applications of displays to information storage, updating and retrieval
5. other interesting applications of displays

The references are to books, journals and published conference proceedings; to articles in all of these; and to reports, theses, conference papers and other bibliographies. Within each section, references are presented in alphabetical order of author's name, or of the first word of the title if there is no author. There is an index to authors which gives the date of each reference and the section in which it is to be found.

Note on U.S. Government Research Reports

U.S. Government reports are usually identified by a serial number following the letters AD or PB. This AD or PB number must be quoted when ordering a report: it is the only positive identification. British libraries such as the National Lending Library for Science and Technology and the Science Museum Library can usually supply these reports on loan or as microfiche copies.

Note on the use of the word 'display'

It should be pointed out that the word 'display' may take one of several meanings, e.g.:-

- a computer controlled (usually a cathode ray tube) device capable of presenting computer digital information as letters and numbers (alphanumerics) and lines and curves (graphics), and usually capable of accepting inputs from the user via pointing and drawing devices, keyboards and pushbuttons
- any aspect of a man-machine system which presents the man with sensory inputs which when interpreted give him information on the state of the system. (This display need not be visual, nor obvious to the user or the designer of the system)
- the visual information displayed on the screen of a visual display unit.

1 : GENERAL

1 : 1 REFERENCE

General

BURGESS E., (ed.), 1965,
On-line Computing Systems
(Detroit: American Data Processing)

HOWARD J.H., (ed.), 1963,
Electronic Information Display Systems
(Washington: Spartan)

KARPLUS W.J., (ed.), 1967,
On-line Computing
(New York: McGraw-Hill)

Bibliography

On-Line Computer Systems, vol. 1, 1968,
(Defense Documentation Center)
September 1968 AD-675050

Reviews

DAVIS Ruth M., 1966,
'Man-machine communication'
in CUADRA C.A., (ed.), 1956,
Annual Review of Information Science and Technology
(New York: Wiley)
pp. 221-254

MILLS R.G., 1967,
'Man-machine communication and problem-solving'
in CUADRA C.A., (ed.), 1967,
Annual Review of Information Science and Technology
(New York: Interscience)
pp. 223-254

LICKLIDER J.C.R., 1968,
'Man-computer communication'
in CUADRA C.A., (ed.), 1968,
Annual Review of Information Science and Technology
(Chicago: Encyclopedia Britannica)
pp. 261-246

1 : GENERAL

1 : 2 DISPLAYS

COMPTON R.D., 1966,
'Information Displays'
in EDN, The Electronics Engineers Design Magazine,
11:4, April 1966
pp. 111-146

CUNDALL C.M., 1968,
'Cathode-ray-tube display systems'
in Electronics and Power, March 1968
pp. 115-120

DAVIS R.M., 1964,
'The information display field as it exists today'
in Information Display, 1:1, Sept./Oct., 1964
pp. 28-34

DAVIS R.M., 1965,
'A history of automated displays'
in Datamation, 11:1, January, 1965
pp. 24-28

HOBBS L.C., 1966,
'Display applications and technology'
in Procs. IEEE, 54:12, December 1966
pp. 1870-1884

IEE Colloquium on Cathode Ray Tube Displays
(London: IEE)
Colloquium Digest no. 1969/10

KRAMPEN M., and SEITZ P., (eds.), 1967,
Design and Planning 2: computers in design and
communication
(New York: Hastings House)

LOEWE R.T., et.al., 1961,
'Computer generated displays'
in Procs. IRE, 49:1, January 1961
pp. 185-195

LUXENBERG H.R., 1967,
'Survey and history of the state-of-the-art'
in GRUENBERGER F., (ed.), 1967, Computer Graphics
(Washington: Thompson)
pp. 23-37

MAHAN R.E., 1968,

A state-of-the-art survey of the data display field
(Richland, Washington: Pacific Northwest Lab.)

Report BNWL-725, AEC Research and Development Report

'Man-machine interaction: remote consoles and
displays'

in Procs. IFIP Congress, 1965, part 2
(Washington: Spartan)

pp. 504-509

POOLE H.H., 1966,

Fundamentals of Display Systems
(Washington D.C.: Spartan)

ROSENBLUM M., 1966,

'Computer controlled displays'
in Computer Design, 5, July 1966

pp. 20-22

VAN DAM A., 1965,

A survey of pictorial data processing techniques and
equipment

(University of Pennsylvania: Moore School of Electrical
Engineering)

AD-626-155

VAN DAM A., 1966,

'Computer driven displays and their use in man/machine
interaction'

in ALT F.L., and RUBINOFF M., (eds.), 1966,
Advances in Computers Vol. 7 (London: Academic Press)

pp. 239-290

AFIPS Procs. vol.33, Fall Joint Computer Conference
1968 (Washington: Thompson)

Special section on Progress in Information Display

Computers and Automation, 13:5, May 1964

Special issue on displays

Computers and Automation, 17:11, November 1968

Special issue on graphic displays

EDN Magazine, 11:4, April 1966

Special feature section on Information Displays
pp. 111-146

Information Display, 2:2, March/April 1965

'Display glossary'

pp. 24-25

1 : GENERAL

1 : 3 GRAPHICS

CHASEN S.H., 1965,
'Man-computer graphics'
in Lockheed-Georgia Quarterly, Summer 1965

CHASEN S.H., and SEITZ R.N., 1967,
'On-line systems and man-computer graphics'
in Computers and Automation, 16:11, November 1967
pp. 22-28

ELLIOT GREEN R., 1969,
'Computer graphics in the United States'
in Computer Aided Design, 1:3, Spring 1969
pp. 33-38

GRUENBERGER F., (ed.), 1967,
Computer Graphics: Utility/Production/Art
(Washington: Thompson)

JOYCE J.D., and CIANCIOLI M.J., 1967,
'Reactive displays: improving man-machine
graphical communication'
in AFIPS Procs. vol. 31, Fall Joint Computer
Conference, 1967 (Washington: Thompson)
pp. 713-721

MACHOVER C., 1968,
'State of the computer graphics art in the
United States'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)

'Man-machine interaction: graphic data processing'
in Procs. IFIP Congress, 1965, part 2
(Washington: Spartan)
pp. 578-583

MATSA S.M., 1968,
'What has computer graphics to offer.'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)

MINISTRY OF TECHNOLOGY: COMPUTER-AIDED DESIGN
COMMITTEE, 1969,
Report on computer graphics
(London: Ministry of Technology)
January 1969

- NINKE W.H., 1966,
'Man-computer graphic communication'
in KUO F.F., and KAISER J.F., (eds.), 1966,
System Analysis by Digital Computer
(New York: Wiley)
pp. 395-432
- PARKER D.B., 1965,
'Graphical communication in an on-line system'
in BURGESS E., (ed.), 1965, On-line Computing Systems
(Detroit: American Data Processing)
pp. 89-100
- PARSLOW R.D., et.al., 1969,
Computer Graphics: Techniques and Applications
(London: Plenum)
- SECREST D., and NIEVERGELT J., (eds.), 1968,
Emerging Concepts in Computer Graphics
(New York: Benjamin)
- SKINNER F.D., 1966,
'Computer graphics - where are we.'
in Datamation, 11:5, May 1966
pp. 28-31
- WILKES M.V., 1967,
'Computer graphics'
in Calcolo, April/June 1967
pp. 259-273
- Computers and Automation, 16:11, November 1967
Special Feature: Graphic Data Processing

1 : GENERAL

1 : 4 MAN-COMPUTER INTERACTION

BORKO H., 1966,
Utilization of on-line interactive displays
(Santa Monica, California: System Development
Corp.) 22nd. August 1966
AD-640652

CARBONELL J.R., 1967,
On man-computer interaction: a model and some
related issues
(Cambridge, Mass.: Bolt Beranek and Newman)
September 1967 AD-666 666

LICKLIDER J.C.R., 1960,
'Man-computer symbiosis'
in IRE Trans. on Human Factors in Electronics,
March 1960
pp. 4-11

LICKLIDER J.C.R., and CLARK W.E., 1962,
'On-line man-computer communication'
in AFIPS Procs. vol. 21, Spring Joint Computer
Conference 1962
(Washington: Spartan)
pp. 113-128

LICKLIDER J.C.R., 1965,
'Man-computer partnership'
in International Science and Technology,
May 1965
pp. 18-26

LING M.T.S., 1965,
'Man-machine communication with graphical
console'
(paper presented at the Engineering Summer
Conference on Computer Graphics, University of
Michigan, June 1965)

OLDFIELD J.V., 1969,
'The case for interactive computer graphics'
in Electronics and Power, February 1969
pp. 59-62

ORR W.D., (ed.), 1968,
Conversational Computers
(New York: Wiley)

1 : GENERAL

1 : 5 PROBLEMS

BATES J., 1966,
'A classification of information displays'
in Information Display, 3:2, March/April, 1966
pp. 47-51

CANCRO R., and SLOT K.D.L., 1968,
'Some thoughts on displays'
in SECREST D., and NIEVERGELT J., (eds.), 1968,
Emerging Concepts in Computer Graphics
(New York: Benjamin)
pp. 85-99

DEBONS A., 1965,
'Quantitative evaluation of displays'
in SPIEGEL J., and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington: Spartan)
pp. 423-428

HOBBS L.C., 1969,
'Challenges presented to the computer field
by display technology'
in Procs. S.I.D., 10:1, Winter 1969
pp. 43-45

HORMANN A.O., 1967,
'Designing a machine partner: prospects and
problems'
in Datamation, 13, Feb. 1967
pp. 29-33

HUGHES A.D., 1969,
'Desired characteristics of automated display
consoles'
in Procs. S.I.D., 10:1, Winter 1969
pp. 46-50

LICKLIDER J.C.R., 1965,
'Problems in man-computer communications'
in GELDARD F.A., (ed.), 1965, Communication
Processes (London: Pergamon)
pp. 260-266

MILLER G.A., 1965,
'Man-computer interaction'
in GELDARD F.A., (ed.), 1965, Communication
Processes (London: Pergamon)
pp. 228-237

PARIS E., 1966,
'Talking with computers'
in Science Journal, March 1966
pp. 69-73

SHERR S., 1964,
'Displays, displays, displays'
in Technical Session Proceedings; 4th. National
Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 371-383

SMITH S.L., 1962,
Visual displays - large and small
(Mitre Corp.)
November 1962 ESD-TDR-62-338
AD-293 826

SMITH S.L., 1963,
'Man-computer information transfer'
in HOWARD J.H., (ed.), 1963, Electronic
Information Display Systems
(Washington: Spartan)
pp. 284-299

SUTHERLAND I.E., 1966,
'Computer graphics: 10 unsolved problems'
in Datamation, 11:5, May 1966
pp. 22-27

TALMADGE H.G., 1963,
'Physical principles of displays: classification'
in HOWARD J.H., (ed.), 1963, Electronic Information
Display Systems (Washington: Spartan)
pp. 69-86

WIENER N., 1954,
The human use of human beings
(New York: Doubleday Anchor)

2 : DESIGN OF DISPLAYS

2 : 1 SYSTEM DESIGN

ANDERSON G.B., et.al., 1968,
'Design of a time-sharing system allowing
interactive graphics'
in Procs. A.C.M. 23rd. National Conference,
1968 (Princeton, N.J.: Brandon/Systems Press)
pp. 1-6

BEER Stafford, 1965,
'The world, the flesh and the metal: the
prerogatives of systems'
in Nature, 16th. January, 1965
pp. 223-231

COGGAN B.B., 1967,
The design of a graphic display system
(Los Angeles: U.C.L.A.)
August 1967 AD-658 314

ECKMAN D.P., 1961,
Systems: Research and Design
(New York: Wiley)

ERICKSON W.L., and SOLLER T., 1965,
'Computer driven display systems'
in 1965 IEEE International Convention Record,
Part 3 (New York: IEEE)
pp. 72-84

HALL A.D., 1962,
A Methodology for Systems Engineering
(Princeton: Van Nostrand)

HOBBS L.C., 1965,
'Technologies for the 1970 era tactical display
systems'
in Technical Session Proceedings, 5th. National
Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 293-318

JONES J.C., 1967,
'The designing of man-machine systems'
in Ergonomics, 10:2, March 1967
pp. 101-111

KENNEDY E.J., 1965,
'Some pragmatic considerations influencing the
selection of Air Force display techniques'
in Information Display, 2:4, July/August 1965
pp. 20-23

KUEHN R.L., 1966,
'Display requirements assessment for command
and control systems'
in Information Display, 3:6:66
pp. 43-46

LOEWE R.T., 1963,
'Display system design'
in HOWARD J.H., (ed.), 1963, Electronic Information
Display Systems (Washington: Spartan)
pp. 15-37

LUXENBERG H.R., and KUEHN R.L., 1968,
Display Systems Engineering
(New York: McGraw-Hill)

MANDELL R., and ESTRIN G., 1965,
'Specifications for a design automation system'
in Proceedings of the SHARE Design Automation
Workshop, June 1965
(SHARE Design Automation Project)

MARTIN J., 1967,
Design of Real-Time Computer Systems
(Englewood Cliffs, N.J.: Prentice-Hall)

MELLBERG K., 1969,
'Some Swedish experience in the development of
interactive computer systems'
in International Journal of Man-Machine Studies,
1:1, January 1969
pp. 51-72

POOLE H.H., 1968,
'Computer-display system tradeoffs'
(paper presented at Computer Graphics
International Symposium, Brunel University)

RANDA G.C., 1962,
Design of a remote display console
(Electronic Systems Laboratory, M.I.T.)
Report ESL-R-132
AD-274 985

SALZER J.M., 1961,
‘Evolutionary design of complex systems’
in ECKMAN D.P., (ed.), 1961, Systems Research
and Design (New York: Wiley)
pp. 197-215

THOMAS E.M., 1967,
‘Systems consideration for graphic data
processing’
in Computers and Automation, November 1967
pp. 16-19

WARD J.E., 1967,
‘Systems engineering problems in computer-
driven CRT displays for man-machine communication’
in IEEE Trans. on Systems Science and Cybernetics,
SSC-3:1, June 1967
pp. 47-54

2 : DESIGN OF DISPLAYS

2 : 2 EXPERIMENTS

BRAINARD R.C., et. al., 1967,
'Low resolution TV: subjective effects of frame
repetition and picture replenishment'
in Bell System Technical Journal, XLVI:1, Jan.
1967
pp. 261-271

CHAPANIS A., and LOCKHEAD G.R., 1965,
'A test of the effectiveness of sensor lines showing
linkages between displays and controls'
in Human Factors, 7:3:65
pp. 219-230

DUGGAR B.C., et.al., 1964,
Visual search time as a function of display mode
(Bedford, Mass.: The Mitre Corp.)
Mitre Technical Series Report no. 14

EARL W.K., and GOFF J.D., 1965,
'Comparison of two data entry methods'
in Perceptual and Motor Skills, 20, 1965
pp. 369-384

ENGLISH W.K., ENGLEBART D.C., and BERMAN M.L.,
1967,
'Display-selection techniques for text manipulation'
in IEEE Trans. on Human Factors in Electronics,
HFE-8:1, March 1967

KUBOKAWA C.C., 1968,
'Modular 3-D mockup for configuring control and
display equipment'
in IEEE Trans. on Man-Machine Systems, MMS-9:3,
September 1968
pp. 72-81

MORRILL C.S., GOODWIN N.C., and SMITH S.L., 1968,
'User input mode and computer-aided instruction'
in Human Factors, 10:3:68
pp. 225-232

RUBINOFF M. et. al., 1968,
'Experimental evaluation of information retrieval
through a teletypewriter'
in Communications of the ACM, 11:9, September 1968

SACKMAN H., et.al., 1968,
'Exploratory experimental studies comparing
on-line and off-line programming performance'
in Communications of the A.C.M., 11:1, Jan. 1968
pp. 3-11

SHURTLEFF D.A., 1967,
'Studies in TV legibility: a review of the literature'
in Information Display, 4:1, Jan./Feb. 1967
pp. 40-45

SMITH S.L., and DUGGAR B.C., 1965,
'Do large shared displays facilitate group effort.'
in Human Factors, 7:3:65
pp. 237-244

2 : DESIGN OF DISPLAYS

2 : 3 HUMAN PERCEPTION OF DISPLAYED INFORMATION

BAKER J.D., 1965,
'From the diet of Worms to the bucket of worms:
a protest concerning existing dogma for information
systems'
in Information System Sciences Second Congress,
(Washington: Spartan)
pp. 429-434

BROADBENT D.E., 1958,
Perception and Communication
(London: Pergamon)

DAVID E.E., 1967,
'Physiological and psychological considerations'
in KARPLUS W.J., (ed.), 1967, On-line Computing
(New York: McGraw-Hill)
pp. 107-128

EASTERBY R.S., 1967,
'Perceptual organisation in static displays for
man-machine systems'
in Ergonomics, 10:2, March 1967
pp. 195-205

HALSTED C., 1968,
'Display with entropy'
in Information Display, 5.1:68
pp. 20-27

KLEMMER E.T., 1962,
'Communication and human performance'
in Human Factors, 4:2:62
pp. 75-79

LUXENBERG H.R., and BONNESS Q.L., 1965,
'Quantitative measures of display characteristics'
in Information Display, 2:4:, July/August 1965
pp. 8-14

MILLER G., 1956,
'The magical number seven, plus or minus two:
some limits on our capacity for processing
information'
in Psychological Review, no. 63
pp. 81-97

SMITH S.L., 1963,
Display color coding for visual acuity
(Mitre Corp.) August 1963
Mitre Technical Series Report no.10

VLAHOS P., 1965,
'The three-dimensional display: its cues and
techniques'
in Information Display, 2:6, Nov./Dec. 1965
pp. 10-20

WIERWILLE W.W., 1964,
'A diagrammatic classification of man-machine system
displays'
in Human Factors, 6:2:64

2 : DESIGN OF DISPLAYS

2 : 4 ERGONOMICS AND DISPLAYS

CARBONELL J.R., et.al., 1967,
Human factors and the design of time-sharing
computer systems
(Cambridge, Mass.: Bolt Beranek and Newman)

CHAPANIS A., 1965,
'On the allocation of functions between men and
machines'
in Occupational Psychology, 39:1, January 1965
pp. 1-12

CROPPER A.G., and EVANS S.J.W., 1968,
'Ergonomics and computer display design'
in Computer Bulletin, July 1968
pp. 94-98

DEBONS A., 1962,
'User requirements for display'
in Technical Session Proceedings; 1st. National
Symposium on Information Display
(Los Angeles: Society for Information Display)

DEVOE D.B., 1963,
'Toward an ideal guide for display designers'
in Human Factors, 5:6:63
pp. 583-592

GOULD J.D., 1968,
'Visual factors in the design of computer-controlled
CRT displays'
in Human Factors, 10:4:68
pp. 359-375

GOULD J.D., and MAKOUS W.L., 1968,
'Vision and lasers: human factors of laser displays'
in Information Display, 5:6, November/December
1968
pp. 25-30

KINNEY G.C., 1969,
'Symbols, sense and sin'
in Procs. SID, 10:1, Winter 1969
pp. 30-33

LICKLIDER J.C.R., 1965,
'Principles and problems of console design'
in Procs. IFIP Congress, 1965
(Washington: Spartan)
pp. 508, 509

LLOYD A.T., 1966,
'Check off the human factors design'
in Electronic Design, 16th. August, 1966
pp. 218-221

MAYER S.R., 1964,
Human engineering in the design of instructional systems
(Bedford, Mass.: Decision Sciences Lab., L.G. Hanscom
Field) September 1964 ESD-TDR-64-454
AD-609 368

NICKERSON R.S., ELKIND L.I., and CARBONELL J.R.,
1968. 'Human factors and the design of time
sharing computer systems'
in Human Factors, 10:2:68
pp. 127-134

SHERR S., 1969,
'Display parameters'
in Procs. S.I.D., 10:1, Winter 1969
pp. 57-61

WHITFIELD D., 1967,
'Human skill as a determinate of allocation of
function'
in Ergonomics, 10:2, March 1967
pp. 154-160

WHITHAM G.E., 1965,
'The determination of display screen size and
resolution based on perceptual and information
limitations'
in Information Display, 2:4, July/August 1965
pp. 15-19

WOLIN B.R., 1963,
'System concept and human factors in information
display'
in HOWARD J.H., (ed.), 1963, Electronic Information
Display Systems (Washington: Spartan)
pp. 3-14

3 : COMPUTER DISPLAYS

3 : 1 SURVEYS OF DISPLAY EQUIPMENT

ADAMS ASSOCIATES, INC., 1966,
The Computer Display Review
(Bedford, Mass.: Charles W. Adams Associates)

BRINTON J.H., et.al., 1965,
Display-equipment state-of-the-art: manufacturer's
index and characteristics comparison charts
(Cleveland, Ohio: Franklin Institute Research Labs.)
January 1965 Technical Report 1-065

CORBIN H.S., 1965,
'A survey of CRT display consoles'
in Control Engineering, December 1965
pp. 77-83

CRALLE R.K., and MICHAEL G.A., 1967,
'A survey of graphic data processing equipment
for computers'
in KRAMPEN M., and SEITZ P., (eds.), 1967, Design
and Planning 2 (New York: Hastings House)
pp. 155-176

ELECTRONICS RESEARCH CENTER, NASA, 1969,
Recent advances in display media
(Los Angeles: Technology Publishing Corp.)

GRAHAM D., 1964,
'High-density information displays: information
please'
in Data and Control, March 1964
pp. 16-19

'Graphic data systems and devices'
in Computer Industry Annual, 1967-68
(Computer Design Publishing Company)
pp. 94-111

JOHNSON R.W., 1964,
'Digital data display systems: an assessment'
in Computers and Automation, 13:5, May 1964
pp. 12-17

KEAST D.N., 1967,
'A survey of graphic input devices'
in Machine Design. August 3rd. 1967
pp. 114-120

KLEIMAN E.B., 1967,
A survey of various information display devices
(Orlando, Florida: Naval Training Device Center)
May 1967 AD-653 867

MACHOVER C., 1966,
'Family of computer-controlled CRT graphic
devices'
in Information Display, 3:4, July/August, 1966
pp. 43-46

MACHOVER C., 1967,
'Graphic CRT terminals - characteristics of
commercially available equipment'
in AFIPS Procs. vol 31, Fall Joint Computer
Conference, 1967
pp. 149-159

REAGAN F.H., 1967,
'Viewing the CRT display terminals'
in Data Processing, February 1967
pp. 32-37

ROME AIR DEVELOPMENT CENTER, 1964,
Compendium of Visual Displays
(New York: U.S.A.F. Systems Command, Griffiss Bas)
RADC Comp. 64-1, March 1964

ROSA J., 1965,
'Command and control display technology since 1962'
in SPIEGEL J., and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington: Spartan)
pp. 411-414

SHACKEL B., and HERSCHE W., 1968,
The man-computer link : a survey of existing
equipment : preliminary report
(Hayes, Middlesex: E.M.I. Ergonomics Lab.)
E.M.I.E. Report D.M.P. 3145

SILVER C.A., 1963,
Review of the display state-of-the-arts
(Franklin Institute)
June 1963 Technical Memorandum 1-004

THEIS D.J., and HOBBS L.C., 1968,
'Low-cost remote CRT terminals'
in Datamation, 14:6, June 1968
pp. 22-29

Visual information display systems: a survey
(Washington, D.C.: NASA)
1968 NASA/Auerbach SP-5049

3 : COMPUTER DISPLAYS

3 : 2 HARDWARE, TECHNIQUES

- COONS S.A., 1960,
Notes on graphical input methods
(M.I.T.: Dynamic Analysis and Control Lab.,
Dept. of Mechanical Engineering)
May 1960 Memorandum 8436-M-17
- DARNE F.R., 1965,
'Advances in techniques for large dynamic display
devices'
in Technical Session Proceedings, 5th National
Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 1-23
- EVANS D.R., 1968,
'Computer graphics hardware techniques'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)
- HARDWAY C.L., 1967,
'Graphic data input-output equipment'
in KARPLUS W.J., (ed.), 1967, On-Line Computing
(New York: McGraw-Hill)
pp. 56-73
- HILSUM C., 1969.
'Displays: CRT holds its own'
in Financial Times, 20:5:69
- HORNBUCKLE G.D., 1967,
'The computer graphics user/machine interface'
in IEEE Trans. on Human Factors in Electronics,
vol. HFE-8:1, March 1967
pp. 17-20
- LEWIN M.H., 1967,
'An introduction to computer graphic terminals'
in Proc. IEEE, 55:9, September 1967
pp. 1544-1552
- LICKLIDER J.C.R., 1967,
'Graphic input - a survey of techniques'
in GRUENBERGER F., (ed.), 1967, Computer Graphics
(Washington: Thompson)
pp. 39-69

NISENOFF N., 1966,
'Hardware for information processing systems'
in Procs. IEEE, 54:12, December 1966
pp. 1820-1835

RUBEN M.A., 1968,
'Low cost graphics'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)

SUTHERLAND I.E., 1966,
'Computer inputs and outputs'
in Scientific American, 715:3, September 1966
pp. 86-111

TAYLOR R.W., 1967,
'Man-computer input-output techniques'
in IEEE Trans. on Human Factors in Electronics,
vol. HFE-8:1, March 1967
pp. 1-4

WIGINGTON R.L., 1966,
'Graphics as computer input and output'
in 1966 IEEE International Convention Record,
14:3 (New York: IEEE)
pp. 86-90

WIGINGTON R.L., 1967,
'Graphics and speech: computer input and output
for communication with humans'
in GRUENBERGER F., (ed.), 1967, Computer
Graphics (Washington: Thompson)
pp. 81-98

WILLIAMS C.W., 1967,
Graphic data handling techniques
(Farmington, Conn.: United Aircraft Corporate
Systems Center)
June 1967 AD-659 807

3 : COMPUTER DISPLAYS

3 : 3 SOFTWARE, PROGRAMMING, LANGUAGES

ALLEN T.R., and FOOTE J.E., 1964,
'Input/output software capability for a man-machine communication and image processing system'
in AFIPS Procs. vol. 26. F.J.C.C., 1964
pp. 387-396

BIRD S., 1968,
'Computer graphics software techniques'
(paper presented at Computer Graphics International Symposium, Brunel University, 29-30 July, 1968)

BOBROW G., 1967,
Natural communication with computers
(Cambridge, Mass.: Bolt Beranek and Newman)
31st. August, 1967
AD-658 829

CORBIN H., and FRANK W., 1966,
'Display oriented computer usage system'
in Procs. ACM 21st. National Conference
(London: Academic Press)
pp. 515-526

EVANS D.S., and KATZENELSON J., 1967,
'Data structure and man-machine communication for network problems'
in Procs. IEEE, 55:7, July 1967
pp. 1135-1144

FRANK W.L., 1965,
'On-line CRT displays: user technology and software'
in BURGESS E., (ed.), 1965, On-line Computing Systems (Detroit: American Data Processing)
pp. 50-62

FRASER J.B., 1967,
'On the role of natural language in man-machine communication'
in WALKER D.E., (ed.), 1967, Information System Science and Technology, 3
(Washington: Thompson)
pp. 21-28

GEAR C.W., 1968,
'Graphical computer-aided programming systems'
(paper presented at Computer Graphics International Symposium, Brunel University, 29-30 July, 1968)

GRAY J.C., 1967,
'Compound data structures for computer-aided
design: a survey'
in Procs. A.C.M. 22nd. National Conference, 1967
(London: Academic Press)
pp. 355-365

HALPERN M., 1967,
'Foundations of the case for natural-language
programming'
in IEEE Spectrum, March 1967,
pp. 140-149

HAYS D.G., 1966,
Computational Linguistics: Bibliography., 1965
(Santa Monica, California: Rand Corp.)
April 1966 AD-630 985

JOHNSON T.E., 1963,
'Sketchpad III: a computer program for drawing
in three dimensions'
in A.F.I.P.S. Procs. vol. 23. Spring Joint
Computer Conference 1963 (Baltimore: Spartan)
pp. 347-354

JOHNSON T.E., 1965,
Analog generator for real-time display of curves
(Lexington, Mass.: Lincoln Lab.)
July 28 1965
Lincoln Laboratory Technical Report No. 398

KULSRUD H.E., 1968,
'A general purpose graphic language'
in Communications of the ACM, 11:4, April 1968
pp. 247-254

LARKIN F.M., 1967,
A graphical output language and its implementation
(London: HMSO)
UKAEA Research Group June 1967

'Man-machine interaction : conversational
programming'
in Procs. IFIP Congress, 1965, part 2
(Washington: Thompson)
pp. 544-551

NEWMAN W.M., 1968,
'A system for interactive graphical programming'
in AFIPS Procs. vol. 32. Spring Joint Computer
Conference, 1968
(Washington: Thompson)
pp. 47-54

ROBERTS L.G., 1963,
Machine perception of three-dimensional solids
(Lexington, Mass.: Lincoln Lab.)

May 22 1963

Lincoln Laboratory Technical Report no. 315

ROBERTS L.G., 1965,
'A graphical service system with variable syntax'
(paper presented at A.C.M. Programming Language
Conference, San Demos, California, August 1965)

ROBERTS L.G., 1965,
'Graphical communication and control languages'
in SPIEGEL J. and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington, D.C.: Spartan)
pp. 211-217

SUTHERLAND I.E., 1963,
'Sketchpad: a man-machine graphical communication
system'
in AFIPS Procs. vol. 23, Spring Joint Computer
Conference 1963 (Spartan)
pp. 329-346

SUTHERLAND W.R., 1967,
'Language structure and graphical man-machine
communication'
in WALKER D.E., (ed.), 1967, Information System
Science and Technology, 3
(Washington: Thompson)
pp. 29-31

THOMAS E.M., 1969,
'Display programming: 1968'
in Procs. S.I.D., 10:1, Winter 1969
pp. 34-42

WAGNER F.V., and LaHOOD J., 1967,
'Computer graphics - software design'
in GRUENBERGER F., (ed.), 1967, Computer
Graphics (Washington: Thompson)
pp. 99-133

3 : COMPUTER DISPLAYS

3 : 4 ADVANCES IN HARDWARE AND TECHNIQUES

ARORA B.M., et.al., 1967,
The plasma display panel, a new device for information
display and storage
(Urbana, Illinois: Coordinated Science Lab., University
of Illinois)
April 1967 Report no. R-346
AD-652 590

BAKER C.E., and RUGARI A.D., 1966,
'Large-screen real-time display technique'
in Information Display, 3:2, March/April, 1966
pp. 37-46

DAVIS M.R., and ELLIS T.O., 1964,
'The RAND tablet: a man-machine graphical
communication device'
in A.F.I.P.S. Procs. vol.26. F.J.C.C., 1964
(Washington: Spartan)
pp. 325-331

GALLENSON L., 1967,
A graphic tablet display console for use under
time-sharing
(Santa Monica, California: System Development
Corp.)
August 1967 AD-658 470

GURLEY B.M., and WOODWARD C.E., 1959,
'Light-pen links computer to operator'
in Electronics, 32, 20th. November, 1959
pp. 85-87

HARING D.R., 1965,
'The beam-pen: a novel high-speed input/output
device for cathode-ray-tube display systems'
in A.F.I.P.S. Procs. vol.27. F.J.C.C., 1965
(Washington: Spartan)
pp. 847-856

HERBERT J., 1966,
'Reading and writing with electron beams'
in Electronics, May 30th., 1966
pp. 80-89

HILLS D.S., and HEFTMAN G., 1969,
'The matricon cathode-ray tube'
in Electronics and Power, April 1969
pp. 123,124

JOHNSON E.A., 1967,
'Touch displays: a programmed man-machine
interface'
in Ergonomics, 10:2, March 1967
pp. 271-277

'Laser display seminar'
in Information Display, 5:3:68
pp. 37-64

LEWIN M.H., 1965,
'A magnetic device for computer graphic input'
in A.F.I.P.S. Procs. vol.27. F.J.C.C., 1965
(Washington: Spartan)
pp. 831-838

RIDINGER H.J., 1967,
'The Grafacon man-machine interface'
in Datamation, 13:7, July 1967
pp. 44, 46-47

ROBERTS L.G., 1966,
'The Lincoln wand'
in AFIPS Procs. vol. 28. Fall Joint Computer
Conference 1966
(Washington: Spartan)
pp.223-227

ROSE G.A., 1965,
'Light-pen facilities for direct-view storage tubes - an
economical solution for multiple man-machine
communication'
in IEEE Trans. on Electronic Computers,
EC-14:4, August 1965
pp. 637-639

STONE S.M., et.al., 1969,
'An experimental laser color TV projection display
system'
in Information Display, 6:1, 1969
pp. 41-44

TEXEIRA J.F., and SALLEN R.P., 1968,
'The Sylvania data tablet'
in AFIPS Procs. vol. 32. Spring Joint Computer
Conference 1968 (Washington: Thompson)
pp. 315-322

WILLSON R.H., 1968,
'The plasma display'
in Information Display, 5:6, Nov./Dec. 1968
pp. 39-44

3 : COMPUTER DISPLAYS

3 : 5 ADVANCES IN SOFTWARE AND SYSTEMS

AZIZ R.A., 1967,
'An instrumental display terminal'
in Technical Session Proceedings, 8th. National Symposium on Information Display, 1967
(Los Angeles: Society for Information Display)
pp. 83-90

BARTLETT W.S., et.al., 1968,
'SIGHT, a satellite interactive graphic terminal'
in Procs. A.C.M. 23rd. National Conference, 1968
(Princeton, N.J.: Brandon/Systems Press)
pp. 499-509

BIAL W., 1966,
'A computer-controlled CRT display system'
in Electronic Engineering, 38, June 1966
pp. 354-359

CAMERON S.H., et.al., 1966,
Dialog: a conversational programming system with a graphical orientation
(Chicago: Illinois Institute of Technology, Computer Sciences Division)
September 1966 AD-646 857

CHRISTENSEN C., and PINSON E.N., 1967,
'Multi-function graphics for a large computer system'
in A.F.I.P.S. Procs. vol. 31, Fall Joint Computer Conference 1967 (Washington: Spartan)
pp. 697-711

CULLER G.J., and FRIED B.D., 1965,
'The TRW two-station on-line scientific computer'
in SASS M.A., and WILKINSON W.D., (eds.), 1965,
Computer Augmentation of Human Reasoning
(Washington: Spartan)
pp. 65-88

CUNNINGHAM J.A., et.al., 1966,
Computer/display interface study
(Washington, D.C.: National Bureau of Standards,
Computing Technology Section)
July 1966 AD-651 283

DERTOUZOS M.L., 1967,
'PHASEPLOT: an on-line graphical display technique'
in IEEE Transactions on Electronic Computers, EC-16,
April 1967
pp. 203-209

ENGVOLD K.J., and HUGHES J.L., 1968,
'General-purpose display processing and tutorial system'
in Communications of the A.C.M., 11:10, October 1968
pp. 697-702

JACKS E.L., 1964,
'A laboratory for the study of graphical man-machine
communication'
in AFIPS Procs. vol. 26. FJCC, 1964
(Washington: Spartan)
pp. 343-350

LICHTENBERGER W.W., and PIRTLE M.W., 1965,
'A facility for experimentation in man-machine
interaction'
in AFIPS Procs. vol. 27. Fall Joint Computer
Conference 1965 (Washington: Spartan)
pp. 589-598

MILLER J.C., and WINE C.M., 1968,
'A simple display for characters and graphics'
in IEEE Trans. on Electronic Computers, vol. EC-17,
May 1968
pp. 470-475

NINKE W.H., 1965,
'Graphic 1 - a remote graphical display console system'
in A.F.I.P.S. Procs. vol.27. F.J.C.C., 1965
(Washington: Spartan)
pp. 834-846

REID A., 1967,
'Computer generated display systems'
in Data Systems, December 1967
pp. 28-31

ROSE G.A., 1967,
'Intergraphic: a micro-programmed graphical-
interface computer'
in IEEE Trans. on Electronic Computers, vol. EC-16:6,
December 1967
pp. 773-784

STANDEVEN J., et.al., 1968,
‘Multiconsole-computer display system utilising
television techniques’
in Procs. IEE, 115:10, October 1968
pp. 1375-79

STOTZ R.H., and CHEEK T.B., 1967,
‘A low-cost graphic display for a computer time-
sharing console’
in Technical Session Proceedings, 8th. National
Symposium on Information Display
(Los Angeles:
Society for Information Display)
pp. 91-100

VORHAUS A.H., 1966,
‘General purpose display system’
in Datamation, 12:7, July 1966
pp. 59-64

4 : APPLICATIONS

4 : 1 INFORMATION TECHNOLOGY AND ON-LINE INFORMATION HANDLING

AVAKIAN E., and JENISON F.W., 1965,
'Voice response and visual display techniques for on-line information handling systems'
in Technical Session Proceedings, 4th. National Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 307-334

BIGELOW J., 1965,
'Rational and irrational requirements upon information retrieval systems'
in SPIEGEL J., and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington: Spartan)
pp. 85-94

BUSH V., 1945,
'As we may think'
in Atlantic Monthly, 176, July 1945
pp. 101-108

CORBIN H.S., and STOCK G.J., 1965,
'On-line querying via a display console'
in Technical Session Proceedings, 4th. National Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 127-154

CUADRA C.A., (ed.), 1966, 1967,
Annual Review of Information Science and Technology
(New York: Interscience for American Society for Information Science)

CUADRA C.A. (ed.), 1968,
Annual Review of Information Science and Technology
(Chicago: Encyclopedia Britannica for American Society for Information Science)

DAVIS R.M., 1965,
'Classification and evaluation of information system design techniques'
in SPIEGEL J., and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington: Spartan)
pp. 77-84

DENNIS J.B., and GLASER E.L., 1965,
'The structure of on-line information processing
systems'

in SPIEGEL J., and WALKER D.E., (eds.), 1965,
Information System Sciences Second Congress
(Washington: Spartan)

pp. 5-14

DIEBOLD J., 1965,
'What's ahead in information technology.'

in Harvard Business Review, September/October 1965
pp. 76-82

JAMES P., and DITTBERNER D.L., 1964,
'Display requirements of the integrated management
information system, 1968-70'

in Information Display, 1:2:64

pp. 26-31

KOCHEN M., (ed.), 1967,

The Growth of Knowledge: readings on organization
and retrieval of information
(New York: Wiley)

LICKLIDER J.C.R., 1966,

'A crux in scientific and technical communication'
in American Psychologist, 21:11, November 1966

pp. 1044-1051

LICKLIDER J.C.R., 1967,

'Interactive information processing'

in TOU J.T., (ed.), 1967, Computer and Information
Sciences II (London: Academic Press)

pp. 1-13

NEELAND F., 1966,

A bibliography on information science and technology
for 1966

(Santa Monica, California: System Development Corp.)

NEELAND F., 1968,

A bibliography on information science and technology
for 1967

(Santa Monica, California: System Development Corp.)

SPIEGEL J., and WALKER D.E., (eds.), 1965,

Information System Sciences Second Congress
(Washington: Spartan)

4 : APPLICATIONS

4 : 2 INFORMATION STORAGE AND RETRIEVAL, LIBRARY AUTOMATION

BORKO H., and BURNAUGH H.P., 1966,
'Interactive displays for document retrieval'
in Information Display, 3:5:66
pp. 47-53, 90

BROWN S.C., 1966,
'A bibliographic search by computer'
in Physics Today, 19, May 1966
pp. 59-61

BURNAUGH H.P., 1967,
'The BOLD (Bibliographic On-Line Display) system'
in SCHECTER G., (ed.), 1967, Information Retrieval:
A Critical View (London: Academic Press)
pp. 53-67

CAUTIN H., et.al., 1967,
An experimental on-line information retrieval system
(Philadelphia, Pa.: Moore School of Electrical
Engineering)
April 1967 AFOSR-68-1600
AD-671 962

HARING D.R., 1968,
'A display console for an experimental computer-
based augmented library catalog'
in Procs. ACM 23rd. National Conference
(London: Academic Press)
pp. 35-43

KESSLER M.M., 1967,
'The on-line technical information system at
M.I.T.: Project TIP'
in 1967 IEEE International Convention Record,
part 10 (New York: IEEE)
pp. 40-43

KIMBER R.T., 1968,
'An operational computerised circulation system
with on-line interrogation capability'
in Program, 2:3, October, 1968
pp. 75-80

LICKLIDER J.C.R., 1965,
Libraries of the Future
(Cambridge, Mass.: M.I.T. Press)

LIPETZ Ben-Ami, 1966,
'Information storage and retrieval'
in Scientific American, 215:3, September 1966
pp. 224-245

LOWE T.C., 1966,
Design principles for an on-line information
retrieval system
(Philadelphia, Pa.: Moore School of Electrical
Engineering)
December 1966 AFOSR 67-0423
AD-647 196

'Man-machine: a contemporary dialogue'
in S.D.C. Magazine, 10, September 1967
pp. 13-19

PRYWES N.S., 1965,
'Browsing in an automated library through remote
access'
in SASS M.A., and WILKINSON W.D., (eds.), 1965,
Computer Augmentation of Human Reasoning
(Washington: Spartan)
pp. 105-130

ROWSE D., 1969,
'The retrieval of technical information'
in Electronics and Power, March 1969
pp. 96-98

SALTON G., 1965,
'Progress in automatic information retrieval'
in IEEE Spectrum, August 1965
pp. 90-103

SALTON G., 1968,
Automatic Information Organization and Retrieval
(New York: McGraw-Hill)
McGraw-Hill Computer Science Series

SCHECTER G., (ed.), 1967,
Information Retrieval: a Critical View
(London: Academic Press)

SHACKEL B., 1965,
'QUIS.: a retrieval system for library documents and
the Tufts and D.S.I.R. human sciences bibliographies'
in Human Factors, 7:5:65
pp. 431-450

SIMMONS R.F., 1966,
On-line interactive displays in application to linguistic analysis and information processing and retrieval
(Santa Monica: System Development Corp.)
September 1966 AD-640 647

SMITH W.A., et.al., 1968,
Experimental retrieval system studies, report 4:
Transition to on-line information and reference retrieval
(LeHigh University) August 1968
AD-674 954

SUMMIT R.K., 1967,
'DIALOG: an operational on-line reference retrieval system'
in Procs. ACM 22nd. National Conference, 1967
(Washington: Thompson)
pp. 69-86

YOUNG J.W., 1968,
'BARONET: a simplified CRT-based information storage and retrieval system'
in Procs. A.C.M. 23rd. National Conference, 1968
(Princeton, N.J.: Brandon/Systems Press)
pp. 53-59

4 : APPLICATIONS

4 : 3 INFORMATION SYSTEMS

Management Information Systems

- BEER S., 1966,
'The computer as a creative tool of management'
in *The Accountant*, April 9th., 1966
pp. 426-430
- FITZ A.E.P., 1968,
'Alphanumeric terminals for management information'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)
- HOWARD J.H., 1966,
Electronic Information Displays for Management
(Detroit: American Data Processing)
- MORRILL C.S., 1967,
'Computer-aided instruction as part of a management information system'
in *Human Factors*, 9:3:67
pp. 251-256
- SPIEGEL J., et.al., 1966,
Aesop: a general purpose approach to real-time direct access management information systems
(Bedford, Mass.: Mitre Corp.)
June 1966 AD-634 371
- TEICHROEW D., 1965,
'Data display in business and information systems'
in *Information Display*, 2:6, November/December 1965
pp. 33-39
- WOLTERS M.F., 1967,
'GOLEM: continued'
(Paper presented at the FID/IFIP Joint Conference,
Rome, June 1967)

Medical Information Systems

- FULLER W.D., 1967,
'Physician-machine interface in a hospital information system'
in Technical Session Proceedings, 8th. National Symposium on Information Display
(Los Angeles: Society for Information Display)
pp. 111-122

KIELY J.M., et.al. 1968,
‘A computer-based medical record’
in Journal of the American Medical Association,
205:8, August 1968
pp. 571-576

LEVY R.P., and CAMPBELL M.R., 1968,
‘Information systems applications in medicine’
in CUADRA C.A., (ed.), 1968, Annual Review of
Information Science and Technology
(Chicago: Encyclopedia Britannica)
pp. 397-428

4 : APPLICATIONS

4 : 4 COMPUTER-AIDED DESIGN

CAMPION D., 1968,
Computers in Architectural Design
(London: Elsevier)

CARLSON R.D., 1969,
'Computer graphics and manufacturing'
in Information Display, 6:1, January 1969
pp. 48-53

CHASEN S.H., 1965,
'The introduction of man-computer graphics
into the aerospace industry'
in AFIPS Procs. vol. 27, F.J.C.C. 1965
(Washington, D.C.: Spartan)
pp. 883-892

COONS S.A., 1963,
'An outline of the requirements for a computer-
aided design system'
in A.F.I.P.S. Procs. vol. 23, S.J.C.C. 1963
(Baltimore, Maryland: Spartan)
pp. 299-304

CROSS N.G., 1967,
Simulation of computer-aided design
(Manchester: University of Manchester Institute of
Science and Technology)
unpublished M.Sc. dissertation

FETTER W.A., 1965,
Computer Graphics in Communication
(New York: McGraw-Hill)
McGraw-Hill Engineering Graphics Monograph

JOHNSON W.L., 1967,
'The Ford computer graphics project'
in Computers and Automation, November 1967
pp. 35,36

'Man-machine interaction: engineering design'
in Procs. IFIP Congress, 1965, part 2
(Washington: Spartan)
pp. 476-479

MANN R.W., and COONS S.A., 1965,
'Computer-aided design'
in McGraw-Hill Yearbook of Science and Technology
(New York: McGraw-Hill)
pp. 1-9

M.I.T. Project Staff, 1960,
Investigations in computer-aided design
(Cambridge, Mass.: M.I.T.)
May 30 1960 Report ESLR 8436-IR-1
PB-155 405

PARKER D.B., 1967,
'Solving design problems in graphic dialogue'
in KARPLUS W.J., (ed.), 1967, On-Line Computing
(New York: McGraw-Hill)
pp. 179-219

PRINCE M.D., 1966,
'Man-computer graphics for computer-aided design'
in Procs. IEEE, 54:12, December 1966
pp. 1698-1708

SHIPPEY G.A., 1968,
'Design automation: a problem in systems engineering'
in Data Systems, July 1968
pp. 34-37

SIDERS R.A., et.al., 1966,
Computer Graphics, a Revolution in Design
(published by A.M.A. for Harvard Business School)

SIDERS R.A., 1967,
'Computer-aided design'
in IEEE Spectrum, November 1967
pp. 84-92

STOTZ R., 1963,
'Man-machine console facilities for CAD'
in AFIPS Procs. vol. 23, SJCC 1963 (Spartan)
pp. 323-328

STUCKLES T.O., 1964,
Some human engineering problems in computer-aided
design
(M.I.T.) Thesis

WALTER P.E., 1968,
'Computer graphics used for architectural design
and costing'
(paper presented at Computer Graphics International
Symposium, Brunel University, 29-30 July, 1968)

WOOD R.C., and HENDREN P., 1968,
'A flexible computer graphic system for architect-
ural design'
in Information Display, March/April 1968
pp. 35-40

4 : APPLICATIONS

4 : 5 OTHER APPLICATIONS

Education

COLBY K.M., 1968,
'Computer-aided language development in non-speaking
children'
in Arch. Gen. Psychiat., vol. 19, December 1968
pp. 641-651

ENGEL G.L., 1967,
Computer-assisted instruction: a selected bibliography
and KWIC index
(Dahlgren, Va.: Naval Weapons Lab.)
August 1967 Tech. memo no. K-49/67
AD-659 987

FEIN L., 1967,
'Thoughts on computer-based instruction'
in Journal of Educational Data Processing, 4:4,
Fall 1967
pp. 248-253

GLASER R., and RAMAGE W.W., 1967,
'The student-machine interface in instruction'
in 1967 IEEE International Convention Record, part 10
(New York: IEEE)
pp. 52-59

HICKEY A.E., and NEWTON J., 1967,
Computer-assisted instruction: a survey of the
literature
(Entelek Inc.) Jan. 1967
AD-649 335

KOBLE R., 1967,
'The talking typewriter: and the learning of reading
in a disadvantaged community'
in Computers and Automation, 16:11, November 1967
pp. 37-40

STOLUROW L.M., 1967,
Computer-assisted instruction (CAI)
(Cambridge, Mass.: Harvard Computing Center)
June 1967 Tech. Report no. 2

SUPPES P., 1966,
'The uses of computers in education'
in Scientific American, 215:3, September 1966
pp. 206-223

ZINN K.L., 1968,
'Programming conversational use of computers for
instruction'
in Procs. A.C.M. 23rd. National Conference, 1968
(Princeton, N.J.: Brandon/Systems Press)
pp. 85-92

Journal of Educational Data Processing, 4:4:67
Fall 1967
Special issue: Computer-based instruction

Editing and typesetting

FURTH S.E., 1968,
'Man-machine interaction in publishing technical
literature'
in Journal of Chemical Documentation, 8:4, November 1968
pp. 202-203

JASPERT W.P., 1967,
Advances in Computer Typesetting: Proceedings of the
International Computer Typesetting Conference
(London: Institute of Printing)

MATHEWS M.V., and MILLER J.E., 1965,
'Computer editing, typesetting and image generation'
in AFIPS Procs. vol. 27, F.J.C.C., 1965, part 1
(Washington: Spartan)
pp. 389-398

PHILLIPS A.H., 1968,
Computer Peripherals and Typesetting
(London: H.M.S.O.)

Programming

SUTHERLAND W.R., 1966,
The on-line graphical specification of computer
procedures
(Lexington, Mass.: Lincoln Lab.)
Lincoln Laboratory Technical Report no. 405
AD-639 734

ZIMMERMAN L.L., 1967,
'On-line program debugging - a graphic approach'
in Computers and Automation, 16:11, November
1967
pp. 30-34

Other applications

BALZER R.M., and SHIREY R.W., 1968,
The on-line firing squad simulator
(Rand Corp.) August 1968
AD-675040

GUY G.A., 1965,
'CRT displays for simulation'
in Simulation, December 1965
pp. 407-412

KRONEN S.T., 1967,
'Direct editing of research data by application of
computer display techniques'
in IEEE Transactions on Communications Technology,
COM-15, February 1967
pp. 131-134

ADAMS ASSOCIATES, INC.,	1966	3:1
ALLEN T.R., and FOOTE J.E.	1964	3:3
ANDERSON G.B., et.al.,	1968	2:1
ARORA B.M., et.al.,	1967	3:4
AVAKIAN E., and JENISON F.W.,	1965	4:1
AZIZ R.A.,	1967	3:5
BAKER C.E., and RUGARI A.D.,	1966	3:4
BAKER J.D.,	1965	2:3
BAIZER R.M., and SHIREY R.W.,	1968	4:5
BARTLETT W.S., et.al.,	1968	3:5
BATES J.K.,	1966	1:5
BEER S.,	1965	2:1
BEER S.,	1966	4:3
BERMAN M.L., ENGLISH W.K., and ENGELBART D.C.,		
1967	2:2	
BIAL W.,	1966	2:1
BIGELOW J.,	1965	4:1
BIRD S.,	1968	3:3
BOBROW D.G.,	1967	3:3
BONNESS Q.L., and LUXENBERG H.R.,	1965	2:3
BORKO H., and BURNAUGH H.P.,	1966	4:2
BORKO H.,	1966	1:4
BOWMAN S., and LICKHALTER R.A.,	1968	2:1
BRAINARD R.C., et.al.,	1967	2:2
BRINTON J.H., et.al.,	1965	3:1
BROADBENT D.E.,	1958	2:3
BROWN S.C.,	1966	4:2
BURGESS E., (ed.),	1965	1:1
BURNAUGH H.P., and BORKO H.,	1966	4:2
BURNAUGH H.P.,	1967	4:2
BUSH V.,	1945	4:1
CAMERON S.H., et.al.,	1966	3:5
CAMMANN M.R., and LEVY R.P.,	1968	4:3
CAMPION D.,	1968	4:4
CANCRO R., and SLOTNICK D.L.,	1968	1:5
CARBONELL J.R.,	1967	1:4
CARBONELL J.R., et.al.,	1967	2:4
CARBONELL J.R., NICKERSON R.S., and ELKIND J.I.,	1968	
2:4		
CARLSON R.D.,	1969	4:4
CAUTIN H., et.al.,	1967	4:2
CHAPANIS A.,	1965	2:4
CHAPANIS A., and LOCKHEAD G.R.,	1965	2:2
CHASEN S.H.,	1965 (a)	1:3
CHASEN S.H.,	1965(b)	4:4
CHASEN S.H., and SEITZ R.N.,	1967	1:3
CHEEK T.B., and STOTZ R.H.,	1967	3:5
CHRISTENSEN C., and PINSON E.N.,	1967	3:5
CIANCIOLI M.J., and JOYCE J.D.,	1967	1:3
CLARK W.E., and LICKLIDER J.C.R.,	1962	1:4
COGGAN B.B.,	1967	2:1
COLBY K.M.,	1958	4:5
COMPTON R.D.,	1966	1:2

COONS S.A., 1960 3:2
COONS S.A., 1963 4:4
COONS S.A., and MANN R.W., 1965 4:4
CORBIN H.S., 1965 3:1
CORBIN H.S., and STOCK G., 1965 4:1
CORBIN H.S., and FRANK W., 1966 3:3
CRALLE R.K., and MICHAEL G.A., 1967 3:1
CROPPER A.G., and EVANS S.J.W., 1968 2:4
CROSS N.G., 1967 4:4
CUADRA C.A., (ed.), 1966 4:1
CUADRA C.A., (ed.), 1967 4:1
CUADRA C.A., (ed.), 1968 4:1
CULLER G.J., and FRIED B.D., 1965 4:5
CUNDALL C.M., 1968 1:2
CUNNINGHAM J.A., et.al., 1966 3:5

DARNE F.R., 1965 3:2
DAVID E.E., 1967 2:3
DAVIS M.R., and ELLIS T.O., 1964 3:4
DAVIS R.M., 1964 1:2
DAVIS R.M., 1965 (a) 1:2
DAVIS R.M., 1965 (b) 4:1
DAVIS R.M., 1966 1:1
DEBONS A., 1962 2:4
DEBONS A., 1965 1:5
DENNIS J.B., and GLASER E.L., 1965 4:1
DERTOUZOS M.L., 1967 3:5
DEVOE D.B., 1963 2:4
DIEBOLD J., 1965 4:1
DITTBERNER D.L., and JAMES P., 1964 4:1
DUGGAR B.C., et.al., 1964 2:2
DUGGAR B.C., and SMITH S.L., 1965 2:2

EARL W.K., and GOFF J.D., 1965 2:2
EASTERBY R.S., 1967 2:3
ECKMAN D.P., 1961 2:1
ELLIOT GREEN R., 1969 1:3
ELKIND J.I., CARBONELL J.R., and NICKERSON R.S.,
1968 2:4
ELLIS T.O., and DAVIS M.R., 1964 3:4
ELLIS T.O., and SIBLEY W.L., 1967 3:2
ENGEL G.L., 1967 4:5
ENGELBART D.C., BERMAN M.L., and ENGLISH W.K.,
1967 2:2
ENGLISH W.K., BERMAN M.L., and ENGELBART D.C.,
1967 2:2
ENGVOLD K.J., and HUGHES J.L., 1968 3:5
ERICKSON W.L., and SOLLER T., 1965 2:1
ESTRIN G., and MANDELL R., 1965 4:4
EVANS D.R., 1968 3:2
EVANS D.S., and KATZENELSON J., 1967 3:3
EVANS S.J.W., and CROPPER A.G., 1968 2:4

FEIN L., 1967 4:5
FETTER W.A., 1965 4:4
FITZ A.E.P., 1968 4:3
FOOTE A.E., and ALLEN T.R., 1964 3:3
FRANK W.L., 1965 3:3
FRANK W., and CORBIN H.S., 1966 3:3
FRASER J.B., 1967 3:3
FRIED B.D., and CULLER G.J., 1965 4:5
FULLER W.D., 1967 4:3
FURTH S.E., 1968 4:5

GALLENSON L., 1967 3:4
GEAR C.W., 1968 3:3
GLASER E.L., and DENNIS J.B., 1965 4:1
GLASER R., and RAMAGE W.W., 1967 4:5
GOFF J.D., and EARL W.K., 1965 2:2
GOODWIN N.C., MORRILL C.S., and SMITH S.L.,
1968 2:2
GOULD J.D., 1968 2:4
GOULD J.D., and MAKOUS W.L., 1968 2:4
GRAHAM D., 1964 3:1
GRANT E.E., and SACKMAN H., 1967 2:2
GRAY J.C., 1967 3:3
GRUENBERGER F., (ed.), 1967 1:3
GURLEY B.M., and WOODWARD C.E., 1959 3:4
GUY G.A., 1965 4:5

HALL A.D., 1962 2:1
HALPERN M., 1967 3:3
HALSTED C., 1968 2:3
HARDWAY C.L., 1967 3:2
HARING D.R., 1965 3:4
HARING D.R., 1968 4:2
HAYS D.G., 1966 3:3
HEAD R.V., 1967 4:3
HEFTMAN G., and HILLS D.S., 1969 3:4
HENDREN P., and WOOD R.C., 1968 4:4
HERBERT J., 1966 3:4
HERSCH W., and SHACKEL B., 1968 3:1
HICKEY A.E., and NEWTON J.M., 1967 4:5
HILLS D.S., and HEFTMAN G., 1969 3:4
HILSUM C., 1969 3:2
HOBBS L.C., 1965 2:1
HOBBS L.C., 1966 1:2
HOBBS L.C., and THEIS D.J., 1968 3:1
HOBBS L.C., 1969 1:5
HORMANN A.O., 1967 1:5
HORNBUCKLE G.D., 1967 3:2
HOWARD J.H., (ed.), 1963 1:1
HOWARD J.H., 1966 4:3
HUGHES A.D., 1969 1:5
HUGHES J.L., and ENGVOLD K.J., 1968 3:5

JACKS E.L., 1964 3:5
 JAMES P., and DITTBERNER D.L., 1964 4:1
 JASPERT W.P., 1967 4:5
 JENISON F.W., and AVAKIAN E., 1965 4:1
 JOHNSON E.A., 1967 3:4
 JOHNSON R.W., 1964 3:1
 JOHNSON T.E., 1963 3:3
 JOHNSON T.E., 1965 3:3
 JOHNSON W.L., 1967 4:4
 JONES J.C., 1967 2:1
 JOYCE J.D., and CIANCIOLO M.J., 1967 1:3

 KARPLUS W.J., (ed.), 1967 1:1
 KATZENELSON J., and EVANS D.S., 1967 3:3
 KEAST D.N., 1967 3:1
 KENNEDY E.J., 1965 2:1
 KESSLER M.M., 1967 4:2
 KIELY J.M., et.al., 1968 4:3
 KIMBER R.T., 1968 4:2
 KINNEY G.C., 1969 2:4
 KLEIMAN E.B., 1967 3:1
 KLEMMER E.T., 1962 2:3
 KOBLER R., 1967 4:5
 KOCHEN M.(ed.), 1967 4:1
 KRAMPEN M., and SEITZ P., (eds.), 1967 1:2
 KRONEN S.T., 1967 4:5
 KUBOKAWA C.C., 1968 2:2
 KUEHN R.L., 1966 2:1
 KUEHN R.L., and LUXENBERG H.R., 1968 2:1
 KULSRUD H.E., 1968 3:3

 LaHOOD J., and WAGNER F.V., 1967 3:3
 LARKIN F.M., 1967 3:3
 LEVY R.P., and CAMMARN M.R., 1968 4:3
 LEWIN M.H., 1965 3:4
 LEWIN M.H., 1967 3:2
 LICHTENBERGER W.W., and PIRTLE M.W., 1965 3:5
 LICKHALTER R.A., and BOWMAN S., 1968 2:1
 LICKLIDER J.C.R., 1960 1:4
 LICKLIDER J.C.R., and CLARK W.E., 1962 1:4
 LICKLIDER J.C.R., 1965 (a) 1:4
 LICKLIDER J.C.R., 1965 (b) 2:4
 LICKLIDER J.C.R., 1965 (c) 1:5
 LICKLIDER J.C.R., 1965 (d) 4:2
 LICKLIDER J.C.R., 1966 4:1
 LICKLIDER J.C.R., 1967 (a) 3:2
 LICKLIDER J.C.R., 1967 (b) 4:1
 LICKLIDER J.C.R., 1968 1:1
 LING M.T.S., 1965 1:4
 LIPETZ B.-A., 1966 4:2
 LOYD A.T., 1966 2:4
 LOCKHEAD G.R., and CHAPANIS A., 1965 2:2
 LOEWE R.T., et.al., 1961 1:2
 LOEWE R.T., 1963 2:1
 LOWE T.C., 1966 4:2
 LUXENBERG H.R., and BONNESS Q.L., 1965 2:3
 LUXENBERG H.R., 1967 1:2
 LUXENBERG H.R., and KUEHN R.L., 1968 2:1

MACHOVER C., 1966 3:1
MACHOVER C., 1967 3:1
MACHOVER C., 1968 1:3
MAHAN R.E., 1968 1:2
MAKOUS W.L., and GOULD J.D., 1968 2:4
MANDELL R., and ESTRIN G., 1965 4:4
MANN R.W., and COONS S.A., 1965 4:4
MARTIN J., 1967 2:1
MATHEWS M.V., and MILLER J.E., 1965 4:5
MATSA S.M., 1968 1:3
MAYER S.R., 1964 2:4
MELLBERG K., 1969 2:1
MICHAEL G.A., and CRALLE R.K., 1967 3:1
MILLER G.A., 1956 2:3
MILLER G.A., 1965 1:5
MILLER J.C., and WINE C.M., 1968 3:5
MILLER J.E., and MATHEWS M.V., 1965 4:5
MILLS R.G., 1967 1:1
MORRILL C.S., 1967 4:3
MORRILL C.S., GOODWIN C.S., and SMITH S.L., 1968 2:2

NEELAND F., 1966 4:1
NEELAND F., 1967 4:1
NEWMAN W.M., 1968 3:3
NEWTON J.M., and HICKEY A.E., 1967 4:5
NICKERSON R.S., CARBONELL J.R., and ELKIND J.I.,
1968 2:4
NIEVERGELT J., and SECREST D., (eds.), 1968 1:3
NINKE W.H., 1965 3:5
NINKE W.H., 1966 1:3
NISENOFF N., 1966 3:2

OLDFIELD J.V., 1969 1:4
ORR W.D., (ed.), 1968 1:4

PARIS E., 1966 1:5
PARKER D.B., 1965 1:3
PARKER D.B., 1967 4:4
PARSLAW R.D., et.al., 1969 1:3
PHILLIPS A.H., 1968 4:5
PINSON E.N., and CHRISTENSEN C., 1967 3:5
PIRTLE M.W., and LICHTENBERGER W.W., 1965 3:5
POOLE H.H., 1966 1:2
POOLE H.H., 1968 2:1
PRINCE M.D., 1966 4:4
PRYWES N.S., 1965 4:2

RAMAGE W.W., and GLASER R., 1967 4:5
RANDA G.C., 1962 2:1
REAGAN F.H., 1967 3:1
REID A., 1967 3:5
RIDINGER H.J., 1967 3:4
ROBERTS L.G., 1963 3:3
ROBERTS L.G., 1955 (a) 3:3
ROBERTS L.G., 1965 (b) 3:3

ROBERTS L.G., 1966 3:4
 ROSA J., 1965 3:1
 ROSE G.A., 1965 3:4
 ROSE G.A., 1967 3:5
 ROSENBLUM M., 1966 1:2
 ROWSE D., 1969 4:2
 RUBEN M.A., 1968 3:2
 RUBINOFF M., et.al., 1963 2:2
 RUGARI A.D., and BAKER C.E., 1966 3:4
 SACKMAN H., and GRANT E.E., 1967 2:2
 SACKMAN H., et.al., 1968 2:2
 SALLEN R.P., and TEXEIRA J.F., 1968 3:4
 SALTON G., 1965 4:2
 SALTON G., 1968 4:2
 SALZER J.M., 1961 2:1
 SCHECHTER G., (ed.), 1967 4:2
 SECREST D., and NIEVERGELT J., (eds.), 1968 1:3
 SEITZ R.N., and CHASEN S.H., 1967 1:3
 SEITZ P., and KRAMPEN M., (eds.), 1967 1:2
 SHACKEL B., 1965 4:2
 SHACKEL B., and HERSCHE W., 1968 3:1
 SHERR S., 1964 1:5
 SHERR S., 1969 2:4
 SHIPPEY G.A., 1968 4:4
 SHIREY R.W., and BALZER R.M., 1968 4:5
 SHURTLEFF D.A., 1967 2:2
 SIBLEY W.L., and ELLIS T.O., 1967 3:2
 SIDERS R.A., et.al., 1966 4:4
 SIDERS R.A., 1967 4:4
 SILVER C.A., 1963 3:1
 SIMMONS R.F., 1966 4:2
 SKINNER F.D., 1966 1:3
 SLOTNICK D.L., and CANCRO R., 1968 1:5
 SMITH S.L., 1962 1:5
 SMITH S.L., 1963 (a) 2:3
 SMITH S.L., 1963 (b) 1:5
 SMITH S.L., and DUGGAR B.C., 1965 2:2
 SMITH S.L., GOODWIN N.C., and MORRILL C.S.,
 1968 2:2
 SMITH W.A., et.al., 1968 4:2
 SMURA E.J., 1968 3:3
 SOLLER T., and ERICKSON W.L., 1965 2:1
 SPIEGEL J., and WALKER D.E., (eds.), 1965 4:1
 SPIEGEL J., et.al., 1966 4:3
 STANDEVEN J., et.al., 1968 3:5
 STOCK G.J., and CORBIN H.S., 1965 4:1
 STOLUROW L.M., 1967 4:5
 STONE S.M., et.al., 1969 3:4
 STOTZ R.H., 1963 4:4
 STOTZ R.H., and CHEEK T.B., 1967 4:2
 STUCKLES T.O., 1964 4:4
 SUMMIT R.K., 1967 4:2
 SUPPES P., 1966 4:5

SUTHERLAND I.E., 1963 3:3
SUTHERLAND I.E., 1966 {a) 1:5
SUTHERLAND I.E., 1966 {b) 3:2
SUTHERLAND W.R., 1966 4:5
SUTHERLAND W.R., 1967 3:3

TALMADGE H.G., 1963 1:5
TAYLOR R.W., 1967 3:2
TEICHROEW D., 1965 4:3
THEIS D.J., and HOBBS L.C., 1968 3:1
THOMAS E.M., 1967 2:1
THOMAS E.M., 1969 3:3

VAN DAM A., 1965 1:2
VAN DAM A., 1966 1:2
VLAHOS P., 1965 2:3
VORHAUS A.H., 1966 3:5

WAGNER F.V., and LaHOOD J., 1967 3:3
WALTER P.E., 1968 4:4
WARD J.E., 1967 2:1
WHITFIELD D., 1967 2:4
WHITHAM G.E., 1965 2:4
WIENER N., 1954 1:5
WIERWILLE W.W., 1964 2:3
WIGINGTON R.L., 1966 3:2
WIGINGTON R.L., 1967 3:2
WILKES M.V., 1967 1:3
WILLIAMS C.W., 1967 3:2
WILLSON R.H., 1968 3:4
WINE C.M., and MILLER J.C., 1968 3:5
WOLIN B.R., 1963 2:4
WOLTERS M.F., 1967 4:3
WOOD R.C., and HENDREN P., 1968 4:4
WOODWARD C.E., and GURLEY B.M., 1959 3:4

YOUNG J.W., 1968 4:2

ZIMMERMAN L.L. 1967 4:5
ZINN K.L., 1968 4:5